STUDY PROJECT

AD-A209 761

TUNISIAN NAVAL DEFENSE FORCES
IN SUPPORT OF MODERN BATTLE STRATEGY

BY

COLONEL MONCEF KHABTHANI

DTIC
ELECTE
JUL 07 1989
D

DISTRIBUTION STATEMENT A: Approved for public
release; distribution is unlimited.

U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050
18 MAY 1989

89 7 06 086

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Tunisian Naval Defense Forces in Support of Modern Battle Strategy		5. TYPE OF REPORT & PERIOD COVERED Study Project
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Khabthani, Moncef COL, AD Army of Tunisia		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army War College Carlisle Barracks, PA 17013		10. PROGRAM ELEMENT. PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS		12. REPORT DATE March 1989
		13. NUMBER OF PAGES 66
14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION. DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution is unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)
For Tunisia, the main military threat is from the sea. Accordingly, this paper reviews traditional methods of seapower as they apply to the modern battle strategy of the Tunisian Defense Forces. Sea power is the key to future independence and prosperity of Tunisia. To be credible, sea power must adopt a realistic, defensive role, exclusive of air or subsurface capabilities, but inclusive of sea-to-sea missiles or smaller, faster vessels.

USAWC MILITARY STUDIES PROGRAM PAPER

TUNISIAN NAVAL DEFENSE FORCES
IN SUPPORT OF MODERN BATTLE STRATEGY

AN INDIVIDUAL STUDY PROJECT

by

Colonel Moncef Khabthani, AD

Colonel Dennis F. Coupe
Project Adviser

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013
18 May 1989

ABSTRACT

AUTHOR: Moncef Khabthani, COL, AD

TITLE: Tunisian Naval Defense Forces in Support of Modern Battle Strategy

FORMAT: Individual Study Project

DATE: 18 May 1989   PAGES: 67   CLASSIFICATION: Unclassified

For Tunisia, the main military threat is from the sea. Accordingly, this
paper reviews traditional methods of seapower as they apply to the modern
battle strategy of the Tunisian Defense Forces.

TABLE OF CONTENTS

TUNISIAN NAVAL DEFENSE FORCES
IN SUPPORT OF MODERN BATTLE STRATEGY

CHAPTER I

INTRODUCTION

The world is not today what it was at the end of World War II. Strategic
thought, although centered on enduring principles, remains subject to the
realities of the moment. Chief among such realities are technological
advances and changes in international relations among states. Reduced in
significance for a period by nuclear capabilities and doctrines of massive
retaliation, conventional naval strategy is now experiencing a renewal of
interest. The specialized literature of naval strategy increasingly devotes
itself to new approaches to the projection of naval power and the role of
maritime strategy in a state's overall national security strategy.

Beaufre tells us that the essential goal of a conventional military
strategist is to comprehend more quickly than one's adversary the development
of a conflict, and thereby to predict what future adjustments will be of most
benefit.[1] A general strategy of ends, ways and means must be applied to
specific courses of action. A naval strategy must work in concert with a
strategy for land warfare and support the same ends, yet considerable
differences may exist over which should predominate. The United States Navy
did not adopt a clearly defined, post World War II strategy until 1981.[2] At
approximately the same time, Admiral Ogarkov of the Soviet Union published a
series of articles on naval doctrine and strategy under the title, "Naval Art
and Theory." Ogarkov identified important conflicts in the "naval sciences,"
particularly with regard to the roles of the fleet. The specialized
literature of naval strategy is devoted increasingly to new theories of
maritime strategy and projection of seapower.[3] How have traditional

strategic concepts been improved? What is the state of evolution today as regards the missions to be assigned to the navies of the superpowers and the lesser powers? Briefly addressing these questions will provide a basis for a closer examination of Tunisian naval strategy, the forms of this article.

ENDNOTES

1. Introduction a la Strategie: General Beaufre, 1965.

2. The Maritime Strategy: U.S. Naval Institute, January 1986, p. 41.

3. Naval War College Review, September-October 1982.

CHAPTER II

TRADITIONAL CONCEPTS

THE PRE-WAR PATRIMONY

Development of a coherent body of doctrine applicable to naval strategics came late. Notwithstanding the writings of Guibert, Jomini, and Clausewitz, it was the American Admiral Mahan who was the first to elaborate a theory of maritime power based upon historical lessons. After Mahan, many writers including the Mac Kinder (considered the father of geostrategy), Corbett and Castex made valuable contributions to naval strategy. Mahan's basic thesis, in "The Command of the Seas," is that the big determinant in military conflict is use of the seas to one's own advantage, with a corresponding denial of sea control to one's opponents.

Sea Power Concept

A basic consideration of Mahan as to the role of sea power involves the question: Why are there in history some countries that we consider sea powers, and those we consider to be continental powers?

National concepts of sea power tend to downplay the role of land or aerial power. Countries equipped with powerful navies have made a strategic choice recognizing the importance of sea power. Sea power also reflects the degree of war assets devoted to maritime goals. Richmond writes that. . . "The maritime power allows its owner to send its troops through maritime spaces that separate the nations to objectives of its choices and to prevent its adversaries from doing the same."[6] However, a tendency to confuse maritime power with the capacity to control the sealines of communication may lead to a more restrictive view of sea power. Relatively few sea powers have successfully included strategic, as well as operational goals in their

3

maritime planning. Hence, it may be more realistic to consider maritime power as a relative rather than an absolute notion. Countries have different degrees of "sea power" in relation to their interests, their geography and perhaps most importantly, in relation to their adversaries.

The Columb brothers and Mahan, Corbett, and Richmond, from an historical perspective analyzed the characteristics of sea power. They were followed by others, with Admiral Ogorchgov among the more recent. If there is one truth upon which all agree, it is that many variables are involved in assessing national sea power. For the sake of analysis, authors propose their own categories of variables. A consensus seems to exist that nations which are sea powers have an historical dependency on the seas, have relatively strong resources, as well as a maritime fleet, a trade fleet, a combat fleet and naval bases.

Under Mahan's theory, the following factors are relevant to sea power assessment:

o Demographic and economic considerations, the existence of a certain threshold of poverty must be surpassed by a state before it can devote itself to sea power. The moment the country does not find sufficient resources on its own soil, caused by demographic development or inadequancies in its own territory, it turns to fishing trade, or to the settlement of colonies. Other factors which may be regarded as essential to development of sea power are:

o Questions of national mentality. In order to become a sea power, the determination of the country's leaders must find support among the population.

o Geographic position. Sea powers tend to develop in insular, or almost insular countries and in areas situated at crossings of strategic sealines of communication. This theory fits perfectly countries with sea power as a main force, such as Athens, Venice, France, Spain, Portugal, the Netherlands and

4

Great Britain, which all were great sea powers at some period in their respectiv- histories. These sea powers were not able to live within their borders. Only the seas could contribute to their well being. All these countries had leaders who wanted to orient on the seas. Themistocles and Pericles in Athens and Cromwell in England are examples. The physical position of these countries is insular naturally, or artifically, like Venice, or the United Provinces (which flooded their land in front of the Louis XIV's armies), or at the crossing of maritime routes.

But Mahan's theory does not explain why countries like Ireland and Indonesia did not become sea powers, and there are countries where sea power was developed solely by popular will. Under the influence of Mahan and interests which wanted the United States to play a worldwide role, Teddy Roosevelt led the United States to the creation of a war fleet in 1898, and acquired bases in the Antilles and the Pacific.

If Mahan's theory applies well to conventional navy powers such as Great Britain, what does it say about the powers with dominant continental forces? Should we conclude that such countries suffer from obsolete strategy or continental preference?

History and geography again play a role, but the profound reason is more of strategic consideration of continental powers. A naval orientation to sea power should not exclude development, should be a dual orientation, maritime and continental. A ground threat is permanent not only of war, but also defeat, invasion and occupation. On the face of such dire potential consequences, the need for a navy may not seem vital. Economy can often survive maritime blockades, and navies are not feared for their abilities to project ashore great land forces. Moreover, projection of maritime force onto foreign land territories is generally regarded as an act of imperialistic

hegemony, not as easily accepted by other sea powers. France and Germany were frequent victims of this process. When maritime force was used as a tool for conquest of land forces, its employment was often restrained by France, Germany, and Spain as well. Adventures occurred primarily at sea, among naval forces, rarely on the homeland. Thus, leaders of countries with dominant land powers have often resisted development of a naval force, when such a force would not be sufficiently strong to fight against a coalition of countries with both maritime and land forces. Better to be strong on land, than weak on land and weak at sea, and the first priority of the continental policy was to avoid defeat and invasion.

Absent from the vision of continental strategist was a strategic belief by maritime proponents that sea power is the course of capital. Mahan did not adequately address this point.[7]

Throughout history maritime power has had a decisive influence on world affairs, but the extent of such influence is a matter of debate. The degree of influence of naval power has varied according to conditions of the time; some of the benefits of sea power have vanished and replaced by others.

In the world today the utility of the maritime power as a means of invasion still a factor maintaining colonies is only a historical interest. However, colonialism may have survived under other forms.

The sea is the required medium for the action beyond land boundaries. For a maritime power country, the navy is often the main defense tool, the first line of defense for the country and state interests.

The principle of Archimedes pressure, allows the surface of the sea to be an environment for heavy ship transport. Commerce by sea brings wealth to those who engage in it, and the tendency of great maritime powers to control such transport has existed since man first put to sea. It was so in the 17th

6

century, when two concepts crystalized that were important to control over transport of resources by sea: Supremacy over the seas and "War by Course."

Supremacy of the Seas

The expression "supremacy of the seas," as used by Mahan, signified not just sea control but the commensurate prevention of the enemy from the use of the seas. That relates to the use of the seas but not to its ownership.

Battle as a means to achieve supremacy of the seas has become an early dogma of naval strategy. The idea advanced was to attack and destroy enemy forces in decisive battle. Later, when steam propulsion gave ships more mobility, the British discovered that they had a need for replenishment of coal, as well as the need to exercise sea control over compulsary passage points of sea traffic around the world. Their objective was always to be able to bring to "choke points" a superior fleet to engage in a daytime, before an enemy has the opportunity to use the sea to his advantage.

The British and German naval strategies of WWI reflect that heritage leaders of both navies believed that a decisive encounter of their respective combat fleet would decide supremacy of the seas. We saw the tactical hesitation that dominated the jutland encounter.

Few naval strategists understood how the concept of supremacy of the sea had radically changed because of the arrival of the submarines. The English, Germans, Japanese, and Americans in preparation for WWII, focused on the need to bring sea power to bear on the enemy by means of combat fleets.

For Castex, WWI demonstrated that the supremacy of the oceans was still unnecessary for the success on the seas; although the degree and the objectives of the supremacy would have being limited in terms of space and time. He even critized the notion of supremacy as relative, incomplete and imperfect.

7

Subsequently, the doctrine of absolute supremacy of the sea began to evolve into a more relative notion.

Piracy War

When a nation is unable to achieve supremacy of the sea, it must act by subversion:

o   The Corsairs (raiders) had a mission of disturbing the established equilibrium established by the masters of the sea--they sought to capture the adversaries' trade ships. They acted as plain pirates.

The Corsairs who capture the trade ships on the surface were succeeded by Corsairs in submarines who destroyed them. We will see later that certain wars of Corsairs had succeeded and others had failed.

The Blockade

With supremacy of sea comes the ability to transport in wartime all the resources necessary to live and fight a war. It also becomes possible to interdict adversaries, impose blockades as weapons, etc.

The effects of a blockade are not immediate or direct. A blockade works slowly, to throttle adversaries who do not see their forces reduced. Often the blockaded nation ignores the source of the blockade. "The far positioned ships of Abbion, hidden by the fog, and which the Great Army had never seen, were the only obstacle between Napoleon and the conquest of the universe," Mahan wrote. If the blockade is a fearful weapon, it is conditioned upon supremacy of the sea.

From Transport of Forces to the Projection of Power on the Land

Ships have been used for centuries to carry military forces to battle areas. In the beginning of the 19th Century, another maritime mission was developed--projection of land forces over the sea to foreign shores. We find

8

a great number of examples of landing forces in military history. The
amphibious wars, in modern sense of the word, started during the French
Revolutionary War. The Helder 1799 and Aboukir 1801 are examples of
amphibious assault operations executed by the British from maritime platforms.

The catastrophic assault at Gallipoli at 1915, and the impossibility that
followed to distinguish between bad execution and excellent strategy, reduced
the interest that we attach to that mission. However, the WWII and the Korean
Wars justified the importance of the amphibious mission.

A Concept in a Vanishing State: "The Fleet in Being"

In many cases, the weakest or the less ambitious of two most belligerants
does not wish to engage in decisive battles, prefering to reserve its forces
and follow what has become known as the strategy of "the Fleet in Being." A
fleet may restrict the liberty of action of an adversary by its simple
presence and existence notwithstanding its refusal to do battle.

When Lord Torrington was defeated at Beveziers by Tourville, he sought
refuge in the Thames River by removing naval markings in hope of avoiding any
pursuit. In order to apease the anger of his collegues, and threatened with
imprisoned in the Tower of London, Torrington advanced the concept of "the
Fleet in Being." He argued that fleeing in front of Tourville was necessary
to maintain a part of his fleet intact. Accordingly, the English fleet would
continue to have an impact by its own check on the freedom of action of the
French.

From 1690 to 1918, the concept was popular, and no one has ever used it
more efficiently than the Germans between 1916 and 1918. However, after this
period, between the world wars, aircraft carriers were developed. This new
naval weapon, able to destroy enemy ships in their refuge, was designed to
kill the potential threat of "the Fleet in Being."

9

The Policy of "Gunnery" or "Show of Force"

During the 19th Century the appellation of the policy of "Gunnery" entered naval vocabulary. During establishment of the colonies, the naval power showed off their naval forces in order to coerce and bring into submission the sovereigns of the weakest nations.

The "New School"

The "New School" represents the faulty naval strategy based on our reliance on new weapons and technology to achieve national interests. The mid 19th century was characterized by enormous technical advances that transformed the conditions of war on the sea. The world saw the construction of the first armored war ships, cruisers in France, in England and in the United States. The appearance of artillery with arrayed guns and steam power allowed battleship formations and fire power that were impossible for sailing ships. Almost at the same time, there appeared during the American Civil War, which was extremely innovative in all aspects, another weapon that seemed to put in question all that had been acquired: The torpedo.

Facing Great Britain, still mysteries of the seas, the French Admiral Aube and his son-in-law, the journalist Gabriel Charmes, believed that they discovered the torpedo was the ultimate weapon for ship against ship conflict. Gabriel Charmes was not only a sailor, but also a journalist. His imagination perhaps went too far. After he witnessed naval operations in 1886 in the Mediterranean Sea, he wrote: ". . . The big ships have lost their supremacy of the sea; they will be replaced in that role by millions of small ships which will harass them from all directions and will attack them every-where. . . ."

Admiral Aube became Minister of the Navy in 1886, and the orders he gave coupled with the inertia of "light" naval programs allowed France to enter WWI with an important coastal navy.

The error of the New School was in a ship (cruiser) with a limited radius of action, inadequate birthing and support, and poor stability at sea, especially as a firing platform. The New School made no adaptations to the new conditions of combat. However, the technique that permitted the invention of the torpedo, also permitted the cruiser to be equipped eventually with more effective artillery.

Partial Conclusion

The primary function of our use of the sea is lines of communication, including the transport of resources and forces. One cannot seize and hold the sea as one might occupy land, yet the nation which exercises control over the sea, gains clear advantages and prevent sea use by the enemy.

As in land battle, the most direct means to achieve supremacy of the sea is to attack the enemy's organized naval forces. The master of the sea can then interdict the adversary's trade by sea by blockade or other means. He may also move his troops to invade the foreign territory. This later ability is the basis for the great strategic maneuvers, where naval contribution to ground warfare is the most direct.

When a nation cannot or chooses not to control the seas, it may elect to act by subversion, piracy or interdiction, as with "war by course," which attacks the enemy's trade.

In many cases, the weaker or less ambitious of both belligerents, anxious to avoid destination of its weaker navy, takes refuge in the strategy of the "Fleet in Being." That aims to reduce the liberty of action of the enemy by its own fleet simple existence. When the ratio of forces was extremely

unbalanced, the stronger force often made use of the strategy of "Gunnery."

Finally, the unhappy experience of the New School includes the strategic

concepts tested during WWII.

THE LESSONS OF WORLD WAR II

From Supremacy to Control of the Sea

> At the end of WWII, the idea by which we can interdict
> completely the use of sea to the adversary, securing it
> exclusively to one's proper use, was wiped out by
> technology. On the one hand, it was practically
> impossible to impede enemy submarines from access to the
> high seas. On the other hand, there existed areas on the
> sea where the enemy aerial forces would probably prevent
> one's presence. Air power and technology are why, during
> the few decades that immediately followed WWII, the U.S.
> navy enjoyed an overwhelming superiority on the seas; the
> expression, 'supremacy of the seas,' kept the same meaning
> it has had for a long time.[8]

The new expression, "control of the seas," which was substituted for

"supremacy of the seas," tended to clarify the notion of supremacy of the sea,

for a limited period of time. Today, we can conceive of a temporary supremacy

of the sea in the fields of aerial force, on the surface and underwater.

Control is achieved over a limited area in order to move ships for the

projection of power onto the ground, or for resupply overseas. It is no

longer conceivable, except in the most limited sense, to acquire total

supremacy of the sea, or to deny completely its use by the enemy.

In 1939, crusiers were the principal force of the world navies. These

ships had little effectiveness against aircraft carriers which were undergoing

rapid development. The new king of the sea was born. The cruisers went back

to the history museums.

It is because of his daring maneuvers with carriers that Japanese Admiral

Yamamoto was initially successful against the American fleet in the Pacific.

On December 9, 1941 at Pearl Harbor, 3000 kms away from his own bases,

Yamamoto launched his aircraft. The Japanese learned an important lesson from the remarkable raid in the Mediterranean Sea in 1941, by the British aircraft carrier "Illustrious," whose aircraft succeeded in neutralizing an important part of the Italian Fleet at the Port of Tarente.

As mentioned maritime warfare in the Pacific took on a new dimension in WWII. Aircraft, which had been limited to a few miles beyond the horizon, could now project their bombs and torpedos over thousands of kilometers. The Battle of Midway in 1942 is the best known of the new type of the early WWII maritime battles.

In 1944, in the Philippines, the Battle of Leyte was the most important maritime battle during WWII. Fifty aircraft carriers and three hundred combat ships were involved.

The aircraft carriers proved themselves capable of caring out numerous missions which hitherto had been assigned to other combat ships. Attack of ground installations, assaults from the sea, anti-submarine warfare and particularly air defense of friendly naval forces from air attack. Admiral Nimitz, in a 1947 report to the Secretary of the Navy, wrote:

> In all those operations, the employment of naval and air forces has demonstrated the capacity of the Navy to concentrate an aerial force on a desired point and in numbers sufficient that the defenses are overwhelmed at the point of combat. These operations demonstrated the capacity of embarked aviation to apply the principles of mobility and concentration to a degree never marched by other forces.[9]

Thus, the aircraft carrier became the indispensable tool to supremacy of the sea.

The Italian air force theorist, General Douhet, stated in 1939 that: "Ships will disappear from the surfaces of the seas a few days after the initial hostilities break out."

The German General Goering believed he would be able, through air supremacy, to land the Reich Armies in England.

The air forces of Admiral Kesselring, although enjoying favorable positions in Italy, Sicily, and Tunisia, never intended to undo the control of the Royal Navy in the Central Mediterranean, it was difficult to provide regular convoy passage for Rommel's Army in Tripolitania.

Yes, the Strika carried out devastating campaigns in France, against the British fleet in Norway, at Dunkerque in 1940, and against the British ships in the Mediterranean during airborne operations over Crete. Certainly the convoys of Mourmansk paid heavy tribute to such aerial attacks. The German fighters also provided an efficient defense for the German cruisers Scharnhorst and Gneisenau during their passage in force in the English Channel and in the Pas de Calais in 1943. But employment of German aerial assets for naval operations was not completely efficient until the Marines owned their own aircraft. As noted by the Secretary of State, F. Knox, in 1945:

> By coupling aerial assets with the Navy we went far beyond
> all other nations. Despite the bravery and skills of the
> British Royal Air Force, the air forces did not always
> acquire enough knowledge of the sea, the ships, and the
> naval tactics necessary to carry out successfully their
> maritime missions.

It must be added that air supremacy is not of the same nature as supremacy of the sea. When aircraft appeared, theorists predicted that air superiority would become as important as supremacy of the sea. In fact it is not of the same nature for one simple reason: Continuous presence of an air force is too demanding, expansive and unnecessary due quick response time to threats. The aircraft carrier gave the aerial force a greater state of readiness over the oceanic spaces. Thus air superiority is an illusive state which may vary from hour to hour. Sea power is less subject to rapid change. This fragile state

is precious because air superiority must be achieved prior to any landing ashore.

Power Projection

Amphibious operations are as old as the history of conflicts. But these operations have been well prepared or executed except by allies during WWII and Korea.

Many solutions were imagined and put into application. Nearly twenty different types of amphibious ships were built, from the naval tanks and ports to small landing craft for men and equipment. United States produced nearly 100,000 ships and amphibious vessels of all types, at the end of the war we counted one amphibious marine vessel for every two combatants.

The first important landing in North Africa put into effect 160 ships of all types, and 30 combat ships sailed by 1500 marines in order to put ashore 38,000 men and 8,000 vehicles. The Pacific amphibious operations of Guadal Canal, the Philippines and Okinawa were gigantic efforts.

The summiting amphibious warfare was attained on June 6, 1944, in operation Overlord, in Normandy gathering 9,000 ships of all forms and 3,200 airplanes to drop and land five divisions by sea and four airborne divisions in the evening of 6 June, 90,000 men landed, followed by fifteen other divisions. During the next two weeks, a total of 630,000 men and 95,000 vehicles were landed. These operations confirmed the concept of power projection later advanced by the Admirals Zumwalt and Turner, who where respectively Chief of General Staff of the United Stats Navy and Director of the Naval War College, at the beginning of the 1970s.

The process of landing forces on the beaches to benefit land defense forces may be subdivided into three parts: Amphibious assault, naval bombardment and use of supporting radical air forces.

15

Amphibious assaults are landings in force in hostile territory. They tend to have four objectives:

o Securing a zone from which to launch further land attacks. Assaults from the sea were used when there are no other practical means for approach, which is the case when the enemy territory is surrounded by the sea or by difficult terrain and sea is totally under enemy control. Another occasion for amphibious assault is to achieve by pass and surprise. During WWII, the landings at Okinawa and Normandy were the wrong vivid illustrations. The purpose of the Okinawa assault was to secure a base from which the invasion of Japan could be launched. In Normandy, the assault allowed the allies to carry the attack into the heart of Germany.

o To secure a land area from which aerial operations can be launched and sustained. One of the most costly assaults of WWII was against IWO-JIMA, the object being to obtain a site from which the air force could take off and strike Japan.

o To secure particular territory or facilities in order to hinder the enemy from gaining the advantage. The first offensive action of the allies in the Pacific War was the seizure of Guadal Canal in order to keep the Japanese from using airfields there, from which they could be able to disrupt communication and logistic lines between Pearl Harbor and Australia.

o Naval bombardment--Although it is often associated with amphibious assault, naval bombardment has three different objectives:

oo Provide direct support to troops in operations close to the front lines of combat.

oo Interdict all movement along a beach.

oo Harass military or civilian operations in the Coastal Zones.

o Projection of aerial tactical forces--Naval tactical air forces are used to attain three objectives:

oo Destruction of certain parts of enemy war potential.

oo Sustain friendly operations on the ground, directly or by preventing the enemy from receiving reinforcement in combat zones.

oo Prevention of enemy air superiority.

Certain aspects of the missions of the sea control and power projection on the ground are slightly different. A Navy equipped with aircraft carriers can accomplish both missions--projection of power onto the land and sea control. Amphibious assaults against ground based tactical air forces and airports contributes to the mission of sea control.

Offense Mining

One of the most successful uses of offensive mining is that attributed to the United States in the sea of Japan at the end of WWII. From the end of March to mid August 1944, the internal sea of Japan was mined with over 12,000 air dropped mines. The result was an almost complete blockade of Japanese ports. The tonnage of trade ships passing through the Strait of Shimonoseki, between Korea and Japan, dropped from 520,000 in March to only 60,000 in July. By the beginning of August, Japan became completely paralyzed in this area.

Offensive mining of enemy waters is a true delivery of force, and has great psychological and economic advantages. Mining subverts operational effectiveness and morale because it disturbs the established order in one's own waters. The economic advantage stems from the fact that the mines are effective for a long time after enforcement. A cruiser that fires a missile risks receiving a counterstrike; a carrier that sends assault aircraft becomes susceptible to assault. But the layer of mines distributes his gifts

17

and leaves without facing the same degree of danger. After mines are in place
it becomes very difficult to remove or destroy them. As with mines,
submarines act under water by clandestine means.

"Corsair War"

The nation that renounces supremacy of the seas and of Corsair War Acts by
subversion--that is, by covert means, through surprise. Like all acts of
wartime subversion, Corsair War efficiently depends on sustainment and the
degree of hostility in the area. Use is directly proportionate to the former
and inversely proportionate to the latter. During WWII, submarines conducted
a Corsair War in the Atlantic Ocean against allied ship movement. In the
beginning of the war, hostility in the area was weak and the Allies had not
decided yet on their system of convoy, which would permit them to search and
move submarines. When the United States entered the war, the Allies put into
effect their system of convoy. Radars fixed on Navy patrol aircraft allowed
night attacks. The level of hostility in the area increased and sustainment
weakened. Submarines losses rose to an average of ten a month.

The German Admiral Doenitz unsuccessfully sought to rectify the convoy
problem for his submarines by leading attacks with great numbers of
submarines. The level of hostility in an area is important to the point that
the submarines were drawn back by the Germans by May of 1943.

Corsair War was also influenced by introduction of new technology and the
adaptation of new doctrines of employment, such as:

o Improvement to the detection equipment submarines of the escorting
force (ASDIC), British made, named by U.S. (SONAR).

o The appearance of radar on the ships and Navy patrol aircraft was
particularly effective.

o An increase was improved due to the electronic interceptions and of German codes.

o Creation of specialized offensive group for attack of submarines (hunter-killer group) and escort of aircraft carriers. The total expenditure for anti-submarine warfare was, according to computation after the war, five times higher than the cost of submarine themselves.[10]

This Corsair War failed, but in the Pacific the war carried out by U.S. submarines succeeded.

The anti-submarine equipment of the Japanese was relatively weak throughout the war. In addition, the Japanese did not believe in the convoy system. The last convoy escort fleet with a strength of twelve cruisers was not created until July 1942. The second escort fleet was not organized until March 1943. The Japanese fleet numbered no more than four cruisers and two torpedo launchers.

Sustainment of U.S. submarines in the Pacific was possible due to communications and the use of sealanding aircrafts and surface ships. The best Corsair sustainment was a strong fleet because it was an important part of the enemy forces.

The American submarine led in the West Pacific near the borders of the Japanese archipelago, at the war maritime traffic routes of the enemy. The Japanese war industry was practically paralyzed at the end of the conflict. To their great surprise, the United States Air Force learned after the war that the effects of their aerial bombardment were far less important than those realized by maritime blockades carried out by U.S. Navy submarines.

Naval Strategic Thought after the War

Bernard Brodie, the American writer, in his classic "Guide to Naval Strategy," wrote that: "Supremacy of the sea was acquired or conceived within

a certain zone by having the possibility to defeat the most powerful force the enemy can put into that zone."

A Navy exercises it supremacy, using its superiority in combat, to secure its own lines of communications open, and disrupt those of the enemy. The capacity to exercise this supremacy is decisive, because any belligerant who controls the sea around the enemy territory, exercises a power less known in land warfare.

Admiral Nimitz stated that: "The basic objectives and principles of the war do not change and that the new technology, far from limiting the Navy's power, gives to Navy today more impact than she has never had before."

Naval air force in particular has provided naval force with flexibility in action and greatly extended fire power.

On the other side of the Atlantic, Colonel S.W. Roskill, official historian of the Royal Navy during WWII, revealed that certain mistakes of the Admiralty might be attributed to his adherence to the absolute doctrines and improved historical theories. First among Roskill's errors was the tendency to give more importance to the necessity of big naval battle, by reducing other activities less spectacular, but strongly useful (such as the defense of maritime traffic). Even the idea of seeking a decisive battle had been misunderstood. Extended artillery fire between two line of ships became less important with the new weapons developed, such as aircraft and submarines.

CONCLUSION

The classical, conservative concept of naval strategy was reinforced by historic assessments. Nevertheless, the evolution of technology modified certain aspects.

Supremacy of the sea allows a nation to win lasting wars. Supremacy at sea constitutes the final and most ambitious objective of a naval power in time of war. It allows whoever possesses it to secure and open his own sea lines of communications and to impede on those of the enemy. Because of the Corsair submarines, the protection of navy traffic imposes itself and has as importance the attack of enemy organized forces. Air supremacy is a precondition to any action close to the coastline. These may be attacked during amphibious operations with violence never attained before. Operational strategy was shaken by the appearance of two new actors in the naval theater of operations: Submarines and aircraft made their first trials during World War II. The theater of operations both maritime and aerial was reached by two supplemental dimensions. Sea battle was no longer a fight between floating artilleries.

Action by subversion became worthwhile because of the disymmetry between its means and those required by an efficient defense.

Development of conclusions to be applied to a type of war, in order to see more clearly the future, is a difficult task. It is necssary to stress that there is no panacea in strategy. Each war is a special case. What is important is not to commit errors in reasoning, as the historic school taught us.

ENDNOTES

1. Introduction "a la Strategie," General Beaufre, 1965.

2. The Maritime Strategy, U.S. Naval Institute, January 1986, p. 41., La Strategic Naval Americans, Norman Friedman, R.I.D., July 1985, p. 1071.

3. Naval War College Review, September-October 1982.

4. Strategie Sovietique: La Dimension Navale, G. Jacobsen, R.I.D., October 1986.

5. La Theorie de la Flotte, Y. Pararella, Defense Nationale, Juin 1986.

6. Cited by G. Till in "Maritime Strategy and the Nuclear Age."

7. "L'origine des puissances Maritimes" Texte d'me Conference de Mr. Masson.

8. Les Missions de la Marine des Etats Unis, U.A.S., Turner - Aunt 1974.

9. Cited by G. Till in "Maritime Strategy and the Nuclear Age.

10. Strategic Navale: Guerre on Dissuasion V.A., Pierre Lacoste.

CHAPTER III

THE EVOLUTION FACTORS

THE GENERAL FACTORS OF EVOLUTION

The sea covers 71 percent of the globe. The land above the sea level is about 148 millions km. The seas cover 362 millions km square.

More than ever before, nations are concerned with the triad characteristics of the sea:

o It is a geographic space from which the countries appear inside or not as neighbors of narrow seas, oceans, straits, frozen or warm, profound or shallow seas;

o It is an economic space as well as a surface passage for the international exchanges. It is also an area of natural and mineral resources;

o It is a political space: The sea gives a country its resources. That leads to the split of the sea, and its seizure under boundaries of the countries. In order to repulse the longings of other states and their increased surveillance of the coast which modernizes and industralizes. The sea gives space and time to watch and see; political space because it is also a probes competition. It creates parties, assumes divergences, brings the alignment and solidarity doubtful, and the internal equilibrium; it is at the same time the privileged link of the indirect strategy to which the nuclear blockade leads.[1]

Economic Factors

The sea is a source of energy, is also exploitable movement, food stocks and irreplaceable links of communication. The sea has become more necessary for nations, small and large, than ever before.

Sea Resources. Natural gas and oil constitute for the moment the most important resources. Yet more than 1000 oil wells are exploited in the sea, close to the coasts of 35 nations, to the depth under water level less than 200 miles. These wells provide almost 25 percent of the world's oil production and 19 percent for the gas.[2]

o The Energy of Movement. The high seas produce energy through houlemotrice (waves) and marethermic tide power. They are unfinished, free, and nonpollitive; but their exploration is hindered by three major difficulties--production cost, geography and technology.

o Polymetal Samples. They cover the deep bottom of certain oceanic zones, and comprise 30 percent of manganese and up to 2.5 percent of nickel, cobalt, chrome and strategic minerals which are necessary in a fabrication of special steel. They are the core interest of these resources. Among the exploitable mineral resources are phosphates and granula.

o Fishing. Fishing counts for 10 percent of the source of protein for humanity. About 30 percent of total fishing products are used for other than human consumption. Transformation into flour as essential animal food. Fishing fleets have increased and modernized. Plant ships and carriers (of Eastern countries and Japan, particularly) are present in all seas around the globe. They use industrialized fishing methods which are destructive of sea resources.

Fishing is already a source of low intensity conflict where ships have to intervene (cod war, lobster war).

The Sea and Tourism. Tourism constitutues for many countries an indispensable economic resource. A glance at the Mediterranean reveals that it is an important sector where economic activity for 14 nations out of 17

bordering the Mediterranean Sea (exception of Algier, Libya and Albania) is developing.

Tourism in major cases is erected on the basis of the three "S's" (sun, sand and sea). These elements are the attributes of the sea that are the essential factors. Tourism is vulnerable to any act of controversy. As soon as instability is reported by the media it may have adverse effects on tourism.

Sea Lines of Communication and Exchange. Since the end of the war the world economy and national economy entered a materialization phase and the situation became without doubt, irreversible in a dependent way, more and more characterized by the oceanic communication. The possession of fleet directly or under foreign flags is not only a factor of development, but also a way to participate in the oceanic communication and establish its one presence.

The major consequences of these exchanges are the continuous development of communication and armament.

Law Factors

Scanning of the statutes affecting war ships, of new conventions on rights of the sea, and the phenomena of leisured embarkation and merchant fleets of Eastern countries, contribute to extract how these three factors may act on naval strategy, in order to confirm certain aspects and modify others.

Partial Conclusion

Dependence of countries on the sea as means of communication is important and increasing. This trend increases the threat to such routes.

The marines have not only their traditional mission of protecting their own lines of communication, and if possible hindering those of the enemy, but also opposing in peacetime another form of threat based on acts of terrorism,

25

like the mining of lines of communication (this happened in July 1984 in the Red Sea) the piracy act.

o The sea as a source of wealth in the present and even more in the future, is an area that raises desires and increases the risks of conflict.

The Morue (Cod) War, conflict between France and Spain about the fishing zones, without forgetting the possible act of terrorism against the land installation, and that off shore.

The navies have a role of protection and surveillance to play. Not only are they able to provide to governments the information of early warning necessary to deal with tense situations; but also they are able to deter and affirm the determination of their respective states simply by their presence.

o On the level of concepts, in opposition to a classic naval strategy, assumption which implies that the sea is not occupyable, is not a certainty. It is possible that navies would be required to seize oceanic spaces.

o The tendency to take sea space--territorial warfare, fishing zones, exclusive and economic zones--provokes tension and crisis.

The different between Tunisia and Libya about the delimitation of continental plateau, conflict between Argentina and Chili are examples. Navies demonstrate by their presence the determination of their countries to defeat unilateral actions.

o Freedom of movement, guaranteed by the new rights of the sea, is generally secure in peacetime and during crisis. But in case of conflict, the most powerful on the sea may reject access of others and establish exclusive zones as the British did during the Falkland War.

In addition, a powerful maritime country may have to use force in order to affirm freedom of movement like the United States of America in the Gulf of the Sidra.

One must keep in mind that the new convention of the rights of the sea was not ratified by the majority of the countries, and in particular by both superpowers.

The division of maritime space is not admissible by all, the day when control must be exercised over the exclusive Economic Zone, the navies have to revise at least partially their strategy of means, thinking to acquire naval equipment less expensive than a warship in order to respond to the needs of surveillance.

Geostrategic and Geopolitical Factors

According to G. Chaliand and S. P. Rageau (Geostrategic Atlas Reference Book) geopoliticians before WWII identified three types of national relationships with the sea:

o Continental power or inland power (USSR);

o Maritime (sea) power (U.S.A.);

o Maritime rimland.

Since 1945, with the independence of new states in Asia and Africa, other types have appeared. First, an unstable, intertropical belt containing an underdeveloped ring of poverty. There has also been a progressive emergence of an "Australian Ring," industrialized (Australia, Japan, South Africa), all connected to development of maritime power.

o These new elements, added to certain international consensus about the nation of territorial integrity, have helped to convince powerful nations that there is no need to invade a territory.

The terror equilibrium and the terrorism phenomenon influence on naval strategy.

The Transfer of the Confrontation to Peripheral Areas. The mutual neutralization of their sancturies that resulted from their bilateral nuclear

dissuasion of both NATO and Warsaw Pact, had reached a transfer of their political confrontation out of the sancturized zones; at the same time the indirect strategies; for which the sea is a space of privilege maneuver.

Multiplicity of Problems. Decolonization and emancipation of the Third World have increased certain potential problems.

Out of 167 countries that presently exist, as compared to only 30 before WWII, 137 are coastal countries. The new independent states have built naval forces that symbolize their national patriotism. These states are able to stand as perturbators of the established order not only nationalizing certain maritime spaces, but also preventing liberty of movement.

The Instability of the Underdeveloped Poverty Ring. The instability of certain countries in Africa and Asia, even in South America, brought frequent changes in the status of certain zones that influence naval strategy.

Certain examples suffice to illustrate: The reopening of the Suez Canal in 1975 modified world traffic and increased the possibilities for intervention in the Indian Ocean by maritime powers. Free access to the Gulf was vital for Europe in 1978 because Europe got more than 75 percent of their supply of crude oil from the Gulf. (This is not the case today, with the exploitation of off shore platforms in the North Sea). The occupation by USSR of the base Cam Ranh in Vietnam has profoundly modified her maritime intervention capabilities in the Southwest Pacific and in the Indian Ocean.

These examples remain however conjunctional, and the status of concerned zones may change today or tomorrow. This has as consequences: The need, not frequent, for foreign bases situated in instable political zones and an increased tendency of great powers to protect friendly regimes.

Consensus Over Territorial Integrity. The evolution of international relations makes clear a kind of consensus on the invisibility of territorial

integrity of the states. That consensus is accepted by practically all nations with slight modifications that reduce almost totally the need to invade territories. This evolution was followed by a projection of these needs on the sea and the evolution of concept "power projection" to punctual and external intervention missions.

Terrorism. Terrorism may be defined as the systematic use of violence by groups or states in order to deter the opinions to obtain political or diplomatical concessions from other victimized countries from the use of blackmarketing for their sovereignty.[3]

We counted about 500 acts of international terrorism carried out by U.S. in 1983, 650 in 1984, and 810 in 1985;[4] that nears an annual increase of 30 percent.

The phenomena is international and deals for the moment only slightly with sea environment. However, all countries confronted with these phenomenal, fight and prepare themselves to oppose this new form of war which is able in the future to threaten tourism, coastal and off shore installations, and lines of communications. Navies will consequently be asked to oppose this threat. Have they the necessary technical and tactical means?

Partial Conclusion. The nuclear blockade and the transfer of conflict to the peripheral, lesser developed areas, the inviolability of the poor, underdeveloped ring, and the affirmation of maritime nationalism of newly independent countries to protect territorial integrity, all make navies, big or small, more significant. Tasked with surveillance missions, presence and external intervention, the navies are characterized by discret "manipulation" efforts, as diplomacy supported by an effective use of force.[5]

The rise of a new form of war "terrorism" requires navies to respond by adoptation of their procedures.

Human Factors

The demographic explosion has led to a lack of equilibrium between northern and southern hemisphere. Rapid circulation of information on a global scale also may affect the roles played by the navies in the future.

The Demography. Demography has increased since the beginning of this century. World population figures from 1800 to 2000 (Source: Geostrategy Atlas Reference Book) are as follows:

Year	Population (million)
1800	900
1850	1100
1900	1600
1950	2600
1980	4400
2000	6100

This compounding increase is marked by a huge dissymmetry between countries of the north and most in the south. Northern countries tend to have a low demographic increase index, while southern areas, with higher birth rates have an average index of about three percent with this data it must be added that more than 85 percent of world population lives less than 500 kms from the coastal sea, (in summary the radius of action of a fighter aircraft) and 137 states border the seas.

Access to the sea as a food source has became a matter of acute concern. Also, the vulnerability of coastal populations to attack from the sea means the bulk of the population is threatened.

The Media. It is futile to debate media development and media access to populations on a global scale. Information is available instantly. News may be manipulated, and its interpretation often brings problems for governments. Naval forces acting in an environment empty of population and temporally

discrete, may provide politicians sufficient time to prepare, to inform and answer inquires.

Partial Conclusion. The less equipped countries are presently forced to turn to the sea to alleviate food insufficiencies. In addition, impoverishment continues in lesser developed areas and the risks of violent actions multiply to the point of tension where navies of powerful countries may be asked to intervene.

The impact of public opinion limits the liberty of action of governments and imposes limits on the use of violence for management of crisis. Restraints on violence favor the use of naval dipomacy, which will be dealt with below.

Financial Factors

Financial Factors and Strategy of Means. In antiquity, the conception, construction, sustainment and renewal of navies were complex affairs requiring continuity of industrial potential. We can say that beyond the industrial infrastructure of a country, it is scientific and technologic potential that is of prime importance today. They are fundamental to the mutual enrichment of technology and the rapid development of industry. However, a favorable economic capacity is not enough for a successful naval policy. Weapons equipment and installations are expensive, and choices are limited by both financial capability and national commitment to naval development.

The constraint of the budget remains in the appropriation of resources. A share of national GNP appropriated to armed forces, is divided among armed services, subdivided, and apportioned to the various branches. Capital is fractioned between employment and investments (news construction, modernization). Financial means are generally short of the needs (desired ends). We are required to make choices and set priorities.

In addition, despite the policies adopted, home drawbacks may exist because of the factors that disturbs the programs of new contruction and modernizations. Prices always seem to rise more rapidly than resources. The superpowers are sometimes required to considering reductions in their programs. The United States has limited the construction of their Aegis cruisers to 26 units instead of the 50 initially programmed because prices have increased drastically.

Scientific and technological progress has led to new equipment and weapons that are more proficient, complex and expensive. It is always so when we go through one generation of arms to another.

Partial Conclusion. Financial aspects constitutes a major constraint of the strategy of the means:

o The necessity of making choices for the future, as the British did when they renounced aircraft carriers, (although it was indispensable during the Falkland War), is the essence of naval strategy.

It appears, however, that major cutbacks in the navies of the great powers are unlikely because of the recognition of the importance of the interests in sea power.

Naval equipment beyond affordability for the countries of the Third World is considered an obligation in order to protect their economic sea zones.

Consequences of Naval Strategy

Reinforcement of the Role of the Coastal Navy. Extended utilization of the sea is subject to conflicts. The increasing importance of security and the rise of "naval nationalism" reinforce the role of navies in coastal countries in:

o Conflicts over fishing;

o Conflicts related to delimitation of zones under national control, particularly when these zones include oil areas;

o Protection of coastal frontiers in the sea for which surveillance requires increasing expensive and naval equipment;

o Anonymous acts of terrorism;

o Vulnerability in oil wells and platforms to sabotage. All these occasions for the use of force have the same characteristics: They may range in intensity from an absence of general hostility to a high level of conflict.

A New Context for the Employment of Naval Forces. Besides their military capacities, naval forces have a more and more important political function. In peacetime, they allow freedom from the constraints of aerial and landforces--overflight of foreign countries territories, dispossibility of sea and land infrastructure are irreversible attributes that impact on world opinion. Its sacred feature is related to the inviolability of territory. Naval forces carry with them a psychological weight of influence, decision, and credibility.[6] They permit introduction of an element of uncertainty that increases deterrence and the option of withdrawal.

THE TECHNOLOGICAL EVOLUTION

Generalities

The evolution of technology over the last four decades has profoundly modified the nature of naval forces.

Radar, sonar, passive listening, electronic warfare under all its forms, information, automation techniques of propulsion, tracking, telecommunication and other developments have damaged ships and aircraft. Moreover, space is being filled with spacecraft of military importance.

We see an explosion of naval military technology which parallels the development in all fields.

It is not the intention of this study to discuss all the modifications introduced into all factors of action affecting a naval operation or the necessary means to carry out different tasks, nor to review different classical actions in order to comment on their relation to naval strategy. Discussion will be limited to only those measures which most affect the evolution of naval strategy.

Combatant forces at sea today or tomorrow are affected by the following strategic developments:

o Strategic movement is subject to observation from satellites and to listening nets. However, the simplicity of their movements is improved by the increase of their autonomy;

o The actors in a naval war are mostly combat assets. They are engaged in a complex preliminary maneuver which will be that of numerous means to receive information, opposed to those which will counter them, and slant them, in diverse manners. The domination of intellectual and technical of this side of naval actions becomes an essential element of success;

o The battle itself will be profoundly modified by the ubiquity of the threat, which may come at any moment from near or far away, from the stay, from the surface or from the depths, particularly in the forms of missiles, more and more accurate and diverse. Without doubt, new forms of weapons will continue to be introduced.

Consequences for Naval Strategy

It is possible to identify consequences for naval strategy (1) related to general date, (2) those that modify naval war action and (3) those with prospective application.

Consequences Related to General Information. The role of geographic
factors is modified and we witness all sorts of changes of various dimensions
themselves bearing secondary consequences.

The first modification of the role of geographic factors is that the
dependency of the fleets in naval bases had declined due to progress with
strategic mobility and technology. Remote bases are not as necessary as they
were before to conduct an operation.

However, other dependencies have increased particularly with respect to
aerial bases for the transport of spare parts.

The second consequence of a geographic nature is that the advantages of
land over the sea have declined with the following subeffects:

o Increased possibilities for surface to surface missions, and detection
means that allow engagement of an objective further away from the land;

o Increased capacities of aircraft against ground target;

o Possibilities of light, sea to sea missiles positioned on small boats,
giving a great capacity to a coastal defense;

o The development of an immobilized listening net on the compulsary
passages and in oceanic zones. With geographic information, an important
information explosion is ongoing;

o Changes in dimensions of space;

o Increases in detection ranges, weapon ranges, and radium of action for
all transports have shrunk the sea;

o Changes in time dimensions and less reaction time to respond to
attacks;

o Changes in technology and equipment;

o An increase in the minimal naval force dimension capable of assuming
its own self-defense against all forms of the threat.

The consequences resulting from these dimensional changes are: Conduct of naval action must adapt.

o The gap widens between the weak and the powerful in the naval power area: It is not critical anymore to have more or less ships, but to possess key assets.

o The appearance of a kind of threshold of the naval power built of a variety of offensive capabilities.

The result is less naval powers which possess the freedom of their strategic choices.

Consequences on Principles of Naval Action. The consequences of the evolution of classic strategists relate to maneuver and freedom of action, economy of force, and the possibility of concentrating to exploit a favorable imbalance. It is beyond doubt that freedom of action has increased for the "high tech" nations, because they are the only ones with the necessary expertise and both quantitative and qualitative superiority. They are able to project force nearly anywhere, particularly where their main opponent is absent. On the other hand, freedom of action has been reduced for all the other nations everywhere. Both superpowers support war. Yet there are still opportunities for action left to enterprising navies of lesser developed countries in most situations.

o Concentrations. The aptitude for concentrating naval force has been increased. This results from the progress in mobility. In this regard, it should be underlined that it becomes possible to realize synchronization of all attack nuclear submarines. But this improvement is a result due more to the appearance of missiles of greater range. It is only necessary to modify the assigned objectives to realize an effective concentration of fire.

o <u>Economy of Forces</u>. No nation, even among the most powerful, has sufficient means to deal with situations everywhere and simultaneously. Economy of force is more necessary now than it has ever been.

Consequences seem to be progressing toward the freedom of action for the benefit of superpowers, but to the disadvantage of less powerful countries. Also, consequences favor concentration and economy of force.

<u>Prospective Consequences</u>. The great number and varity of technological evolutions promise an explosion of new items in all ranges in the future:

o The importance of navigational and explorational communication satellites is that it becomes difficult to avoid, after the earth, the air and water, into a fourth environment where wars will take place: Space.

o The development of computers, long range weapons, exploration means, and means of detection, suggest that military systems will develop more and more independently from carriers of those systems.

Already, for example, reliance on missiles increases, whether fired from the surface, the air or deep into the water. In the near future, perhaps, this missile will come from the land, or even far from sea, if it has a certain antonomy.

<u>Partial Conclusion</u>. Confrontations may occur from sea environment and fundamental characteristics of warships. These confrontations would utilize actors and objectives which have gone through radical evolution.

The territories have gained in urban and industrial concentrations, and sea traffic and commerce have increased.

Naval forces have multiplied, diversified and improved (active sonar, future weapon, like partical weapons, laser. . . .).

On the level of lesser confrontations, that is, those of low intensity or current situation, naval action is in fact dominated by political assessment of the situation.

Ideology, national feeling, economic constraints, and many other factors add to the military restrictions this kind of situation as difficult terrain, but fertile for a measured naval action, strongly linked to the pursuit of political design.

Particular problems are posed on technological progress in operational intelligence, transmission and sustainment at sea. But naval actors are also less vulnerable to many weapon systems. In this level of confrontation then, many navies have necessary aptitudes to play a certain role, because possession of the most advanced systems is not mandatory to effectiveness.

In some cases of limited war, without nuclear attack submarines, without observation sattelites, operations may resemble those of WWII, notwithstanding the progress in equipment. When the objectives do not affect the major equilibrium of the superpowers, operations will be conventional and limited in nature.

ENDNOTES

1. Les'etats et la mer - L-Lucchini et M Voelckel, public par la documentation francaise, Jan 1978.

2. Number published by "Col Blen" in 1983.

3. Ramses 86/87. Institur Francais des Relations Internationals (IFRI). Public par Atlas-Economica.

4. Ramses 86/87. Institur Francais des Relations Internationals (IFRI). Public par Atlas-Economica.

5. Admiral Beaussant.

6. D.P.O. Connell: The Influence of Law on Sea Power.

CHAPTER IV

CASE STUDY

GENERALITIES

Naval forces provide a means for use of force to achieve sought political goals to demonstrate strength and a proportionate method of exercising force. A navy positioned near foreign coastal lines, symbolizes a friendly presence or depending on the contact, may be considered as a threat. A naval capability to remain at sea for longer periods, near areas of crisis, and the variety of missions a navy may receive (particularly if aircraft carriers are available), provide a lightness of employment favorable to resolution of political crisis. The battleship uses freedom of the seas and moves in international water from which she can carry out many actions: Direct observation, appropriate deployment or projection of power. This ship may act from high seas or near the coasts against other ships or against land. Her presence may be elusive or visible. The battleship is consequently a governmental tool for crises management. All that she does will be considered as a gesture of the flag state. That is why we talk about gesturing or posturing (case of U.S.A and Libya).

By her capacity to be present in peacetime, and with the possibilities for lawful and physical characteristics of the sea may give her, the navy is a privileged asset for governments, a means of conducting naval diplomacy and deterrence against all attempts of aggression threatening installations, citizens or other interests of the state.

A presence at sea may signify many intentions, ranging from simple friendly visits at foreign ports to projection of force in support of a friendly country to a combat threat against an opponent.

Having large naval forces able to directly or indirectly support operations on land theaters may serve as a tool of power projection and strategic mobility (case of Falklands).

Deployed at different oceanic points, near crisis areas, a navy is used to provide security for a country's vital logistics. A naval presence deters potential adversaries from disrupting the communications (case of Iran-Iraq).

Power projection, crisis management, naval diplomacy or simple presence, all these roles assumed by naval forces have been enhanced by incidents or conflicts that took place in recent years.

Case of U.S.A. and Libya

The incidents that happened in the spring of 1986, in the Gulf of Sydra, south of the "Death Parallel," originate in legal controversy. Without getting into the details of the military view, the operations that took place in this limited conflict raised partially to prominence the fundamental abuses of naval air force: Political significance, capacity to last, freedom of movement.

The incidents of March 1986 clearly demonstrated U.S. and Libyan determination to use their naval forces to enforce their own interpretations of the law.

The international character of naval space allowed the United States, before passing through the 32o 30' northern parallel, to deploy without hindrance their fleet in uncontested international waters. The fleet lawfully remained the following month in the same area.

The incidents that then occurred (fire of anti-air missiles Samg and Sams, deployments of speed boats near U.S. Navy battle group, by the Libyans and firing of anti-ship missiles (harpoon) and anti-radar (Harm), attack and

destruction of Libyan small boats by Americans, showed the degree of determination of both belligerents.

The incidents remained limited, because it is relatively easy to control the deployment of a crisis in international space. Having been able to deploy naval forces with security, and having permanently controlled the naval airspace around the fleet in a contested zone, the Americans used naval force as a tool of crisis management from the first stage to the end of the incident.

In this field of security and control of naval airspace, the United States enjoyed clear supremacy. Equipped with hawkeye missiles and with patrol aircrafts, P3 Orion, and with Awacs, for surveillance, the United States forces did not allow Libyan vessels (Vedettes) any chance to close without being identified or destroyed as deemed necessary.

Because of the orgainization and support means, almost one-fourth of the sixth fleet was able to maintain considerable antonomy, and was able to act independent of land infrastructure. The fleet had mobility, strategy and flexibility.

The two carriers brought to the area temporarily assumed local air superiority over great distances. It would have been very difficult to deploy F-111's from Britain in order to counter a squadron of Libyan fighters. But these aircraft were ready to take-off from the positioned carriers. These F-111's constitute, by themselves, a powerful reaction force independent of the carrier's other possibilities.

The Falklands

The 1982 conflict over the Falkland (Malvinas) Islands came to illustrate the roles which the naval force of powerful nations may play. Great Britain,

41

having a well-equipped navy, was able to project sea power over great distance to establish sea control all around the Falklands.

Due to close coordination between the Royal Navy and the British Merchant Fleet, established during peacetime, Great Britain succeeded in providing an enormous logistic effort. One hundred thousand tons of equipment and 9,000 men were brought into the battle area. Two thousand sea resupply actions were carried out.

The two aircraft carriers, Hermes and Invincible, although essentially built for anti-submarine missions, denied Argentina air superiority. The two carriers also provided, without major interruption, liaison between the Islands and the South American Continent, and their presence kept pressure on the Argentine troops stationed in the Islands. Carrier helicopters supported amphibious operations.

The nuclear attack submarine, used for the first time in a real conflict, proved it's decisive potential, capitalizing on it's autonomy and mobility, the nuclear attack submarine "Conqueror" torpedoed the cruiser "Benenal Belgras" resulting in total neutralization of the Argentina Fleet, and it's withdrawal from the combat zone.

Lebanon

Western navies, particularly the French, have played both political and military roles in Lebanon.

The stationing of a French aircraft carrier and it's escort to Beirut Bay on May 8, 1983, sent a message of support from France to the Lebano-Israeli Accord prepared on May 17, 1983.

While Lebanese and Israelis were preparing to sign that accord, certain Lebanese factions and Syrian groups did not approve the treaty. When artillery fire occurred in Beirut, without delay and after cancelling joint

exercise with Egypt, the French accomplished a political move favorable to concluding the Lebanese and Israelis Treaty. France accomplished this by it's naval presence.

By transport and escort missions, by resupply and air naval fire support (vengence operation in Baalabeck), and by contributing to land action (Navy Commandos and demining divers), the French Navy demonstrated in Lebanon the effectiveness of naval presence, deterrence and comprehensive support. These roles are expected from war fleets.

Iran-Iraq

One of the assets the state uses to express her presence in the world in peacetime, and her will and determination during crises, is the navy. The navy is also a tool of first choice to carry out defense on the sea, and to provide freedom of communication in time of conflict.

During the Iran-Iraq War, Iraq tried to throttle the Iranian economy, moving the war to the Gulf waters and into forbidden zones that Iraq defended around the oil terminals of Kharg Island.

Attacks carried out by bombers and armed helicopters by Iraq, and later also by Iran, have since February 1984 included as targets merchant ships and tankers that moved through the Gulf. It should be noted, however, that civilian ships belonging to superpowers or those for which national navy protection was present in the Gulf were not attacked by the Iraquis or Iranians.

In fact, according to reports, no ship nor tanker under U.S., USSR, British or French flag was subject to hostile action by one or the other of the belligerents.

This is probably due to the effect of deterrence and the determination of naval fleets to secure free access and the flow of oil. This determination to

43

maintain oil supplies was pushed to the point of providing convoy escorts to respective tankers.

Another aspect of the Gulf attacks concerned a request of a Gulf country, Kuwait, for reflagging her ships. Kuwait contacted both the USSR and the United States to protect her ships and keep free access to the Gulf. Kuwait did not hesitate to demand that the USSR and U.S. reflag Kuwaiti ships in order to secure movements.

During the 1984-1986 years of the Iran-Iraq conflict, land and aerial actions were rare. "The real activity, whatever it's importance may be, was conducted at sea."[1]

Iraq pursued her attacks without mercy for merchants ships sailing to Iranian ports: Bandar Khomeiny, Burhirc, and the oil terminal of Kharg.

Since the beginning of 1984, Iraq seemed to have chosen a strategy of "running war," as the better option to win the war.

Despite the number of merchants ships hit, damaged or destroyed, Iraq did not accomplish her objective, that is to bring Iran to accept peace.

Iraq attacked maritime traffic to and from Iran. Because of a lack of naval force, Iraq's main offensive tool was aircraft, such as the "Super-etendard" and Exocet missile "AM 3g." The use of this asset in war against commercial traffic has weaknesses. Aircraft have fundamental handicaps in operations against warships, particularly when it operates from the land. (Argentina drew same lessons during the Falklands War): Keeping daily situation and permanent identification.

Iraq came to know, if she had not known earlier, that naval forces are essential to pursue war against trade. Iraq's problem was that her navy and bases at "Basra" and "Oum Quasr" were damaged by Iranian bombings in the first days of the war, and the old warships have remained inoperational since.

The Iranian Navy had limited capabilities. However, Iran showed foresight after the loss of a few "vedettes" and other embarkations during first phases of the war drawing their navy from the "Bandar Abbes" base, out of reach of the Iraqis.

Iran reacted to the Iraqi offensive, against merchant traffic, taking various measures. Ports and lines of sea communications were secured, air defense systems on sea and on land were deployed, convoy systems under escort of battleships were organized, occasionally with air cover, and some air defense was provided on tankers, sailed by military personnel.

In addition to measures cited earlier above, Iran started her war against merchant traffic, selecting her targets from among the traffic to Arab countries.

In the beginning, Iran limited her attacks to Kuwaiti tankers and those of Saudi Arabia. After Iran extended her attacks to ships belonging to other nations of the GCC. Sometimes attacks were carried out within territorial waters of GCC countries, as was the case in June 1986, when two ships were attacked while in UAE territorial waters.

In June 1985, Iran reinforced her surveillance and control of Arab movements through the Gulf and Strait of Hormuz. On June 20, 1985 a Kuwaiti ship, "Al Muharraq," 23,000 tons was seized by Iran and kept until July 13.

Any ships suspected by Iran of transporting equipment to Iraq were diverted to Iranian ports where their loads were discharged.

It is to be noted that:

o The oil traffic remained the target sought by both belligerents;

o Territorial integrity was seldom respected;

o Iran had a prominent position in the Gulf that allowed interception of all ships sailing through the Strait of Hormuz and diverting suspected ships;

o The GCC Arab countries are now conscious that it is because of their military weakness, particularly in naval capabilities, that Iran imposed unilateral authority over the Gulf waterlines.

"Their naval forces, which constitute an ideal tool for military flexible response, are adapted to a role that prohibits freedom of navigation through the Strait of Hormuz."[2]

In concluding the Iran-Iraq case, some think that "this war is principally a naval war."[3] However, the vital role of "maritime power" has been more from those outside the belligerency than within.

o The sovereigns of the states of the Gulf Cooperation Council seem to have realized the urgent need to have real navies able to protect their interests in peacetime, as well as in wartime.

o In the exercise of military power in the strategic zone of the Gulf, the dominant role will be played by naval forces, whether through classical deterrence, by use of force of the superpowers, or by "regional powers."

Conclusion

From the cases cited to illustrate the roles played by various navies in various conflicts (despite origins, causes and theaters of different nature) it is suitable however to draw certain conclusions:

o The use of a navy as a tool of power projection over great distances, in consideration of all important and necessary means, remains the exclusive prerogative of the major powers. The ambition of their navies must be focused on transport and landing of modest volume of forces and coastal actions.

In fact, power projection is the maneuver of crises because of the mobility of aircraft carriers. Through the capabilities of their aircraft, their attack submarines and amphibious forces the naval powers can put ashore troops and combat vehicles.

On the other hand, certain limitations of political consideration, such as sensitivity to world opinion and public reaction (a particular aspect of modern conflicts) where navies are expected to play important roles, have led governments to favor rapid and limited operations. The mission assigned to navies answers the double concern to safeguard interests and provide at the same time a solution to conflicts.

Because of the possibilities provided by political and juridictional aspects of sea environment, the navy remains an appropriate means for enforcing the nations foreign policy.

A naval presence contributes to the national security of sealines of communication and it achieves sea control, which is the capacity to assert a temporary superiority over a portion of the sea.

Sea control should, however, be considered to have a limited role. The expansionaries of the air and sea environment precludes control over all parts of the sea, but control is possible in a given localized theater, and for a limited time.

One Soviet naval mission is officially expressed in the following manner:[4] "Establish control over sea in a limited zone or intervene in a particular localized situation."

The will to be present in all parts of the world, enlarges the gap between navies of superpowers and those of major powers, and of other navies. This will has always existed with U.S. Navy. The Soviet Navy is now demonstrating a similar will. The British and French Navies are trying to follow and narrow the gap.

But deployment of naval forces over the oceans necessitates sustainments, technical support and infrastructure. That is why the prepositioning of

forces, access to sites, and facilities in friendly and allied countries are an additional means to affirm the presence of navies in all oceans.

ENDNOTES

1. "Naval Forces" Revue, November 1986, p. 49.

2. Ibid., p. 50.

3. Ibid., p. 63.

4. Discours de 1 Amiral Lannuzel chef d Etabs Major de la Marine Franscaise, le.

48

CHAPTER V

THE ROLE OF THE NAVY IN THE TUNISIAN DEFENSE FORCES

PREAMBLE

Stated Problem

Tunisia, a small power, does not have great pretentions about it's role as a naval power. However, Tunisia is a maritime country with an advantage position in the Mediterranean, important fishing reserves, an extended undersea plateau, and 1300 kms of coastlines. These facts imply that Tunisia will control landing sites, defend her territorial integrity and protect her economic interests related to the sea.

The suveillance and security mission for landing sites belongs to the naval forces.

Environment

Tunisia lives in an environment which is somehow hostile for many social, economic and historic reasons. To the south is a country whose activities and reactions are unpredictable. That country has never ceased in her ambitions. To the north, Italy has problems with her own fishing industry, which is attracted to the important fishing reserves of Tunisia. Tunisia's economy greatly depends on tourism and industrial zone sited for 90 percent along the coast. The remaining 10 percent are tightly linked to maritime transport.

The population may be influenced by propaganda over hostile radio stations.

Geographic Situation

Tunisia is a small country with a land area of 164,000 km. In the tropical zone, with 1300 kms coastline, Tunisia faces the sea on the north and

the east. The maritime influence is strong. No point of the country is more than 250 kms from the sea border, except in the extreme south. There are no mountains to hinder penetration of the eastern maritime regions.

Tunisia is at a middle point between the Suez Canal, the Strait of Gibraltar and the Strait of Sicily.

Cape Bon, which links the eastern Mediterranean with the western Mediterranean, facing Europe and the Orient, has played a determinant role in shaping the historic fate of the country and her territorial organization.

Tunisia is 100 nautical miles from Sardainia, 80 nautical miles from Sicily and 250 nautical miles from Toulon (in France).

The northern side is 150 nautical miles long from Cape Ronx to Cape Bon. It stretches along a wooded mountainous chain with, in general, rocky cliffs, separated by sandy beaches, then it downs toward the west and to the deep Gulf of Tunis before ascending to the slopes of Cape Bon. Islands and islets broke off from the main chain, sometimes situated in the high sea. Natural harbors are very rare and inappropriate. The most important complexes are Bizerte and Tunis "Bottleneck" Goulette.

As for the eastern coast, it is often flat and sandy. It differs completely from the northern coast. The eastern coast comprises both Gulfs of Hamamet and Gabes, split by the advanced part of Head "Kapoudia," almost a mountainous peninsula of "Cape Bon". That gives room to plains that stretch over small hills. Natural harboring are numerous in that coast and at the edge of bankreefs.

The access to Tunisian coastline by seaways is easy over almost all the coastline. However meaningful landings may be executed in many zones.

Partial Conclusion

The general configuration of the coasts shows that the eastern border is more vulnerable to hostile actions.

The hydrographic characteristics favor the use of submarines in the northern zone. The use of submarines is practically impossible south of the parallel of "Head Kapoudia."

The Tunisian coast is cut, diverse and easily accessible. Surveillance is necessarily continuous and complex.

Tunisia is susceptible to subversive actions from sabotage or commandos, by neighboring or other countries. Her coastal tourist complexes and industrial installations are potentially valuable assets.

The beaches are more important in the eastern coast than in the northern coast. Weather conditions are more favorable in the north than in the south. Consequently the threats to be taken into account are the following: Military, terrorist, injudgements of international navigation laws, I.I. fishing laws, injudgement of customs laws, violation of sovereignty, navigation accident, and pollution.

To be able to deal with all the various external threats, a surveillance system for early warning and defense is to be installed in order to meet all imperatives.

Sea Control

"Sea control," discussed above, comprises: Interdiction of a defined enemy usage of certain water zones at certain moments.

For Admiral Turner, the United States national objectives that explain her unilateral use of the sea aim at interdiction of its use to an adversary are:

o Ensure supplies to the industry;

o Reinforce and sustain forces predeployed overseas;

51

o   Provide allies in wartime with reinforcements of military and economic

nature;

o   Ensure the security of naval forces in their role of land power

projection.

Four different operational approaches are possible to achieve sea control

objectives:

o   By control of departures. It is possible to encircle one's adversary

in his ports or bases of departure if control succeeds. It is an economical

means to deprive an enemy of the use of the sea or of the ability to react;

o   Assume control of choke points. This tactic requires patience;

o   Engage the enemy in large zone operations;

o   Seek localized engagement.

Admiral Turner wrote:

>   The way other countries perceive our aptitude to exercise
>   sea control compared to other major powers, may influence
>   military and political decisions. All that a country
>   requests according to it's possibilities has an influence
>   on challenges that it focuses on or decides to take.

The perception by the remainder of the countries of sea control brings

over estimation. That brings us to deal briefly with naval diplomacy, which

is dependent upon the perceptions of the countries concerned.

Naval Diplomacy

A recent American formulator of "Naval Diplomacy" was Edward Luttwak, with

his theory "Naval Suasion." Luttwak's theory is exercised through reasoning,

not by use of force.[1] It differs from the "policy of gunfire," which

consisted of threatening the weaker to obtain advantages. This theory did not

increase necessarily the threat, but the presence. The theory was placed at a

level of diplomatic dialogue, using methods more meaningful than words,

without renouncing negotiations. Briefly, the theory sought association

between action and gesture in order to constitute a signal, a political and psychological message. The whole spectrum of gestures goes from routine presence to armed interventions. Then naval diplomacy had a broad range of more active gestures, well understood, because navies may exercise their actions on sea, under water, in the air, near or far from the coasts. In addition they are able to apply their gestures on forces, on interests and at the desired locations.

Coastal Defense

This concept signified a lesser portion of sea, and the remainder of the sea belongs to the dominant power. The desire to control coastal waters became the expression of a tendency of appropriation of seas, particularly by new nations.

Coastal defense requires various capacities, particularly those of communicating information and providing intervention forces.

Surveillance is accomplished by surface ships able to remain at sea. Naval patrol aircraft, coastal radar stations and observation posts are of appreciable help, but are unable to posture or "gesture." The submarine remains here a means of deterrence. It also presents an advantage of being unaffected by weather conditions which may be otherwise decisive.

The coastal capacity to react may be left to onboard missiles or to coastal batteries, which may comprise fixed or mobile artillery. Aviation may intervene with air to sea missiles against enemy ships.

When hydrogeography allows, a passive measure of control consists of mining coastal waters. The same mines may be used in offensive actions.

In conclusion, the choices for coastal defense are different and numerous. The solution to build an effective coastal defense, however, is in the appropriate combined use of different means whose composition will be

53

determined by geographic, political and military factors. A solution

absolutely to avoid is that over reliance on bunker defense. Bunkers could

not constitute by themselves a solution even under the best of conditions.

Coastal defense may be capable of protecting interests at sea, secure

lines of communication, and the interests of the state at sea (such as the

absolute affirmation of it's sovereignty). Although this is reduced by the

"right of unoffensive movement," and "the right of passage" through the

straits, and the security of the state rights over the biological natural

resources, or nonbiological exclusive economic zone, and the persuasion of the

state rights over the continental plateau. On the other hand, the state must

fight subversion at sea and that brought on land by sea.

What Naval Ambition for Tunisia?

Turning one's back to the sea means renouncement to all the benefits it

brings up for the country: Prosperity and defense of the territory. That

means giving up resources and increase the sea risks. Selecting a real

solution in naval strategy, because of the high cost of maintaining a navy,

signifies to heavily mortgage the future.

In fact, whatever the size and importance of a nation state, there is

always the factor of territorial integrity; which includes not just its land

territory, but also its territorial seas as discussed above.

Consequently, what kind of navy should Tunisia have? This is a difficult

question because the answer depends mostly on one's perception of the threat

and one's priority of national interests.

The Tunisian Navy is prepared for limited actions, rather than total war

or combat with an intensity of major power levels. In fact, naval action may

find place in different levels of diverse confrontation which all are

conditioned by political and strategic situation of the moment of the

54

countries concerned. This choice is necessarily political at the beginning. The shares of specialists will be more important in the close definition of these confrontations.

Characteristics of confrontations to be prepared for

o Intensity Level

oo The lowest level is that brought about, is the "protection of national interests."

oo The aptitude to deal with a normal crisis situation is in the range of whoever owns small ships equipped with sea-to-sea missiles.

oo The capability for limited war provides a series of greatly complex choices. This choice will be largely determined by threat assessments to which the country feels concerned.

o On the high seas or near the coast

oo The capability to intervene on the high seas, particularly for the protection of sealines of communications, seems out of range of the majority of the Third World countries.

oo Between high seas and the shore, the possibilities for exercising naval force are limited in variety. Geography, in particular, and geopolitics, in general, are determinant factors. Although history teaches us that the role of a navy is not near the coast, but far from the shore. Any country adjacent to the sea is unable to give up whatever naval power they can muster. Even if it is only but a coastal navy.

This navy should have the capacity to pose a credible force to endure tense situations in times of crises, with all this implies about the numbers of ships to be engaged. It must have a high degree of integration with the strategies of sister services. It is necessary to decide in advance. The

degree and modalities of the indispensable cooperation to establish among the nation's different forces, military they are or others.

Particular emphasis should be given to the principle that because enemy aircraft carriers would be out of reach. Close cooperation with the Tunisian air force is important for air superiority near the shore. However, the air force should be equipped with assets related to maritime warfare, such as navy patrol aircraft, specialized helicopters, and surveillance aircraft, like Hawkeye. All other forces should be equipped with different sensors.

It is also noteworthy that besides the aircraft carrier, other key tools of the navy, like the satellite communications, nuclear attack submarines, and cruise missiles are well above the possible capabilities of Third World navies.

Even conventional surface ships are generally above the means of lesser developed countries. The available ships will represent a compromise between the possible and the desired. In regard to financial possibilities, a compromise between the exigencies of surveillance missions and combat power must be found. As for weapon systems based on sea-to-sea or sea-to-air missiles and defense artillery. They do not pose acquisition problems and may be provided on a variety of ships.

Anti-submarine equipment is an expensive option because it requires ships of relatively large frames. It is the same for helicopters on ships.

Passive electronic warfare has become an absolute capacity to win requirement for victory.

In addition to the new resources offered by new technologies, capabilities of firing missiles from shore is important. Sea-to-sea missiles installed on trucks, sea-to-sea missiles transportable and laser guided are essential.

These systems may reinforce and complement navy action from the shore, without taking over the naval role.

Lastly, defensive mining, although forbidden in peacetime, may be an action option for crisis situations.

In conclusion, Tunisia cannot be equipped with a navy in the image of a superpower, but a viable navy remains necessary nonetheless. Naval action should be reinforced and completed by international cooperation arranging the services. The army must be equipped with necessary assets to achieve that end. The organization of forces with means of control, command, and appropriate communication is necessary. This organization must take into account prosperity and human rights. These forces must be able to act by themselves in a joint situation, and also in a combined environment, in order to successfully defend our freedom.

ENDNOTES

The Political Use of Seapower, The Washington Center of Foreign Policy, 1974.

CHAPTER VI

GENERAL CONCLUSION

The general evolution of naval strategy leads us to keep in mind two ideas:

o The frame of political dealings in which naval action may play a role has been widened. In fact, traditional military actions of various levels has added an increasing involvement of states through seapower in order to defend their developing sea interests.

o The multiplicity of situations where naval power supports political objectives has been increased. At the bottom of the scale of violence, the presence and activities of forces at sea play a role in controlling tension, which is almost permanent today and which may be expected to increase with new maritime nationalism. The possibilities of the media to deliver immediate information increases the importance of a warning and defensive role for navies.

The evolution of maritime warfare technology, which has advanced and diversified, leads us to the conclusion that no country is able to acquire everything. However, anyone may find what is necessary to support his political design if it is proportional to the possibilities of the concerned country.

One of the new difficulties is that the expense and complexity of key component of naval action make them unattainable to the majority of countries. They remain the reserved luxury of economic, industrial, and military powers that possess the will to use them.

Recent developments allow us to assess the possibilities of fleet employment. At the same tin we recognize that only maritime power has full strategic choices at sea.

The naval game finally became homogenized to a world shaken by technological explosion and political mutations. Naval policy is very complex and for each country it necessitates clear choices. The first of these choices is that of political design and direction. It is this design that gives dimension to the naval ambitions of a country and sets the limits to the policy.

It must be realized that choices for Third World countries are limited. However, they may not be expected to give up their naval ambitions.

It is not by chance that most major landpowers are also seapowers. The sea has gained in importance, as has been discussed. This importance is being expanded by another dimension, that of the use of space and the "patio naval" discipline.

Tunisia, a small country with limited means, but bordered on the North and East by the sea, must, as others have, develop a navy to match her particular conditions and means. This navy should be integrated in the Tunisian defense forces to ensure mutual support at land, sea, and in the air.

Any Tunisian naval defense should include mobile missiles, fighters, patrol aircrafts, helicopters, means of detection and early warning, and have appropriate and integrated means of control, command, and communications. It be would judicious to include a program of doctrine and training to include the eventuality of using Tunisian defense forces in combined exercises with allies who share the same moral values of peace, ethics, prosperity and freedom for all, and in understanding mutual interests.

BIBLIOGRAPHY

1. Les Conferences Des Nations Unies Et La Convention De Geneve Du 29
Avril 1958, Sur La Mer Territoriale Et Le Zone Contigue, Antoine Fattal,
Librairie Du Liban, 1968.

2. Introduction A La Strategie, General Beaufre, 1965.

3. Fondements Et Principes De L'Action Maritime, C.F. Tripier, Ecole
Superieure De Guerre Navale.

4. Le Statut Des Navires, Emmanuel du Pontavice, Librairies Techniques.

5. La Tunisie Et Le Droit De La Mer, Fadhel Moussa, Imprimerie
Officielle, 1981.

6. Maritime Strategy and the Nuclear Age, Geoffzey Till.

7. Atlas Strategique, Geopolitique des rapports de force dans le monde,
Gerard Chaliand, J.P. Rageau, Fayard, 1983.

8. Pirates Sur Toutes Les Mers Du Globe, Amiral Heinz Neukirchen,
Editions Hier Et Demain.

9. La Guerre Navale, Hubert Moineville, P.U.F., 1982.

10. Les Etats Et La Mer, Le Nationalisme Maritime, Laurent Lucchint,
Michel, La Documentation, Voezckel, Francaise.

11. The Law of the Sea, Louis B. Sohn, West Publishing Co., 1984.

12. Strategie, Guerre Ou Dissuasion?, V.A. Pierre Lacoste, 1981.

13. Ramses, 1986/1987, IFRI, Atlas Economica.

14. Nouvelle Histoire De La Marine, Tome 1, De La Rame A La Voile, Tome 2,
La Vapeur, Le Cuirasse Et Le Canon, Tome 3, La Marine Volante, Rene Maine,
E.M.O.M.

15. International Law Studies, 1955, Robert Tucker, U.S. Naval War
College.

16. La Guerre Du Bout Du Monde, Roger Planchar, Denoez, 1983.

17. Droit Maritime, Rene Rodiere, Dalloz, 1974.

18. The Maritime Strategy, U.S. Naval Institute, 1986.

19. Les Forces Classiques Americaines, Structure, Et Strategie, Fondation
Pour Les Erudes, Yves Boyer, De Defense Nationale, 1985.

REVUES SPECIALISEES

D Revues Francaises (Edites en Franqais).

1. Revue De Defense Nationale.

Dec. 75, Juill. 77, Aout.-Sept. 77, Nov. 77, Aout.-Sept. 78.
Janvier. 80, Fev. 80, Juin 80.
Fev. 81, Avzil. 81, Dec. 81.
Mai. 82, Aout.-Sept. 82, Oct. 82, Nov. 82, Juin 82.
Mars. 83, Mai. 83, Nov. 83, Dec. 83.
Janvier. 84, Avzil. 84, Mai. 84, Oct. 84, Dec. 84.
Avzil. 85, Mai. 85, Juill. 85.
Janvier. 86, Mai. 86, Oct. 86.

2. Nouvele Revue Maritime.

Mars. 77 (Revue Maritime), Dec. 77 (Revue Maritime), Janvier. 78 (Revue
Maritime).
Mars. 80, Juill. 80, Oct. 80, Nov. 80.
Mars. 81, Juill. 81, Dec. 81.
Janvier. 82, Fev. 82.
Janvier. 83, Dec. 83.
Janv.-Fev. 84, Avzil. 84.
Fev. 85, Mars.-Avr. 84.

3. Revue Internationale De Defense.

6/79, 7/80, 2/82, 11/80.
1/83, 2/83, 4/83, 6/83.
3/84, 8/84, 10/84, 11/83.
2/85, 3/85, 4/85, 7/85.
8/76.

4. Science Et Vie, Juillet 82.

2) Revues Anglo-Saxonnes.

    Proceedings
Mai. 81, Mai. 82, Sept. 82, Dec. 82.
Mai. 83.
Mars. 84.
Avril. 85, Juin. 85, Juill. 85, Oct. 85, Dec. 85.
Janvier. 86, Fev. 86, Sep. 86.

5. Naval War College Review.

Mai.-Juin. 82, Juill.-Aout. 82, Sept.-Oct. 82, Nov.-Dec. 82.
Mars.-Avr. 83, Mai.-Juin. 83, Juill.-Aout. 83, Sept.-Oct. 83, Nov.-Dec. 83.

Mars.-Avr. 84, Mai.-Juin. 84, Juill.-Aout. 84, Sept.-Oct. 84.
Janvier.-Fevr. 85, Mars.-Avr. 85, Mai.-Juin. 85.

6. Naval Forces.

III/80, II/81, V/81, V/82, VI/82.
V/85, 1/86, II/86.